GENERAL DATACOMM

Xedge DSLIM

Dual Port, Single Mode Fiber LIM for ATM Cell Transport

INTRODUCTION

The Xedge DSLIM is a dual port OC-3c/STM-1 optical interface that supports transport of ATM cells over a 155.52 Mbps concatenated SONET/SDH interface. The DSLIM is used in conjunction with the Xedge ACS controller module in an Xedge switch system.

The Xedge DSLIM is designed to intermediate reach specifications over Single Mode fiber using FC/PC connectors for each link interfaces. Front panel connectors allow easy access, with LEDs for a quick check of the LIM's communication status.

Timing Options

The transmit clock for the Xedge DSLIM physical interface can be provided by the following:

• Received Clock

• Internal Oscillator

• Primary System Reference from line

• Primary System Reference from Xedge NTM

• Secondary System Reference from line

• Secondary System Reference from Xedge NTM

Xedge Switch Systems

All Line Interface Modules (LIMs) are the same size and plug into universal slots on the back panel of the Xedge switch. The DSLIM is intended for use with the Xedge ACS controller module. This controller and LIM combination installs easily in the front and rear slots of the Xedge 6160 4-slot switch, the Xedge 6280 7 slot switch and the 16-slot Xedge 6640/6645 switch.

Standards Compliance

The Xedge DSLIM is designed for conformance to the relevant domestic and international standards and specifications, ITU-T, ANSI and BellCore recommendations, for the transport of ATM cells across a SONET (Synchronous Optical Network) or SDH (Synchronous Digital Hierarchy) transmission network:

• BellCore GR-253-CORE

• ITU-T G.957, G.958, I.432

• ANSI T1.646

• ATM Forum UNI 3.0/3.1, IISP, B-ICI 1.1

FEATURES

• Dual Port, Intermediate Reach operation

• Data rates of up to 155.52 Mbps, each port

• ATM Cell Switching Applications

• Comprehensive alarm reporting and performance monitoring statistics

• Meets North American & International Transmission Standards

• Provides front panel status and alarm LEDs for TX, RX, RD, BL, LS and YL at each port.

Diagnostics

For diagnostic purposes, the Xedge DSLIM supports loopback tests from the Line and from the Xedge ACS controller module.

Alarms & Performance Monitoring

The OC-3c/STM-1 interfaces support the following physical layer alarms and performance monitoring statistics:

• Loss Of Signal, Loss Of Frame;

• STS Loss Of Pointer;

• Line Alarm Indication Signal;

• STS Path Alarm Indication Signal;

• STS Payload Label Mismatch;

• Remote Failure Indicator Line, Path;

• Section CV, ES, SES;

• Line CV, ES, SES, UAS, Failure Count;

• Far End Line CV, ES, SES, UAS, Failure Count;

• Path CV, ES, SES, UAS, Failure Count;

• Far End Path CV, ES, SES, UAS, Failure Count

Figure 1: Front Panel Features of the Xedge DSLIM